WHAT IS CLAIMED IS

1.   A device in a distributed computing environment, comprising:

5   one or more clients;

           a plurality of message gates, wherein each message gate is configured for sending
                and receiving messages for one of said clients in a data representation
                language to and from a respective paired message gate at another device in
10   the distributed computing environment;

           a message transport configured to implement a transport protocol for sending and
                receiving messages;

15   wherein each one of said message gates references said message transport,
                wherein each message gate is configured to send and receive messages
                independently of the other ones of said message gates while sharing said
                message transport for implementing the transport protocol for sending and
                receiving its messages.

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2.   The device as recited in claim 1, wherein each message gate is configured to
verify messages according to a data representation language message schema.

3.   The device as recited in claim 2, wherein each message gate is configured to
25 verify type correctness of messages sent or received through that message gate according
to the data representation language message schema.

4.   The device as recited in claim 2, wherein each message gate is configured to
verify format correctness of messages sent or received through that message gate
30 according to the data representation language message schema.

5. The device as recited in claim 2, wherein said data representation language schema comprises an eXtensible Markup Language (XML) schema.

6. The device as recited in claim 1, wherein each message gate is configured to include an authentication credential with each message sent from that message gate.

7. The device as recited in claim 1, wherein each message gate is configured to verify an authentication credential included with each message received by that message gate.

8. The device as recited in claim 1, wherein each one of the message gates is configured for creating a bi-directional message channel with its said respective paired message gate for accessing a service in the distributed computing environment.

9. A method for sending and receiving messages in a distributed computing environment, comprising:

a first message gate referencing a message transport to send first messages to a first destination address, wherein said first messages are formatted in a data representation language;

a second message gate referencing said message transport to send second messages to a second destination address, wherein said second messages are formatted in a data representation language; and

said message transport implementing a transport protocol for sending said first and second messages to said first and second destination addresses respectively;

wherein said first and second message gates independently share said message transport for sending messages to said first and second destination addresses respectively.

10. The method as recited in claim 9, further comprising said first and second message gates verifying said first and second messages respectively according respective representation language message schemas.

11. The method as recited in claim 10, wherein said verifying said first and second messages respectively according respective representation language message schemas comprises verifying type correctness of the first and second messages respectively according to the respective representation language message schema.

12. The method as recited in claim 10, wherein said verifying said first and second messages respectively according a respective representation language message schema comprises verifying format correctness of the first and second messages respectively according to the respective representation language message schema.

13. The method as recited in claim 10, wherein said representation language schemas comprise eXtensible Markup Language schemas.

14. The method as recited in claim 9, further comprising said first and second message gates each including a respective authentication credential with each message sent.

15. The method as recited in claim 9, further comprising said first message gate creating a first bi-directional message channel with a message gate at said first destination address and said second message gate creating a second bi-directional message channel with a message gate at said second destination address, wherein said message transport is shared for said first and second bi-directional message channels.

16.   The method as recited in claim 9, further comprising:

binding a first gate name for said first message gate to a transport reference for said message transport, wherein said first message gate is configured to receive messages at an address including a combination of said first gate name and the transport reference; and

binding a second gate name for said second message gate to the transport reference for said message transport, wherein said second message gate is configured to receive messages at an address including a combination of said second gate name and the transport reference.

17.   A carrier medium comprising program instructions, wherein the program instructions are executable to implement:

a first message gate referencing a message transport to send first messages to a first destination address, wherein said first messages are formatted in a data representation language;

a second message gate referencing said message transport to send second messages to a second destination address, wherein said second messages are formatted in a data representation language; and

said message transport implementing a transport protocol for sending said first and second messages to said first and second destination addresses respectively;

wherein said first and second message gates independently share said message transport for sending messages to said first and second destination addresses respectively.

18.   The carrier medium as recited in claim 17, wherein the program instructions are further executable to implement said first and second message gates verifying said first and second messages respectively according respective representation language message schemas.

19.   The carrier medium as recited in claim 18, wherein said verifying said first and second messages respectively according respective representation language message schemas comprises verifying type correctness of the first and second messages respectively according to the respective representation language message schema.

20.   The carrier medium as recited in claim 18, wherein said verifying said first and second messages respectively according a respective representation language message schema comprises verifying format correctness of the first and second messages respectively according to the respective representation language message schema.

21.   The carrier medium as recited in claim 18, wherein said representation language schemas comprise eXtensible Markup Language schemas.

22.   The carrier medium as recited in claim 17, wherein the program instructions are further executable to implement said first and second message gates each including a respective authentication credential with each message sent.

23.   The carrier medium as recited in claim 17, wherein the program instructions are further executable to implement said first message gate creating a first bi-directional message channel with a message gate at said first destination address and said second message gate creating a second bi-directional message channel with a message gate at

said second destination address, wherein said message transport is shared for said first and second bi-directional message channels.

24.   The carrier medium as recited in claim 17, wherein the program instructions are
5   further executable to implement:

binding a first gate name for said first message gate to a transport reference for said message transport, wherein said first message gate is configured to receive messages at an address including a combination of said first gate
10   name and the transport reference; and

binding a second gate name for said second message gate to the transport reference for said message transport, wherein said second message gate is configured to receive messages at an address including a combination of
15   said second gate name and the transport reference.